

Resource Adequacy Steering Committee Meeting

June 9, 2006 - 10 AM to 3 PM

Agenda

I Introductions and Review of April 28th Notes

ATTENDEES: Paul Norman, Tom Karier, Wally Gibson, John Fazio, Mary Johannis, Stefan Brown, John Prescott, Steve Fisher, Jerry Thale, David Clement, Chris Robinson, Pat McGary, Leana Bleakney, Terry Morlan, Aliza Seelig, Steve Weiss, Lee Beyer, Bill Drummond, Howard Schwartz

No one suggested any changes to the April 28th notes.

II Work Plan

Mary Johannis reviewed the Phase I and Phase II elements of the work plan with the Steering Committee. Wally Gibson presented two interpretations of what it might mean for the Council to “adopt” the implementation plan. One interpretation might be for the Council to just adopt the aspects of the implementation approach for which it has responsibility. Paul Norman voiced his preference for the more comprehensive form of Council adoption, which would consist of an affirmation that the implementation plan represents a reasonable assurance to the Region of resource adequacy going forward.

Howard Schwartz suggested that the Washington state process to develop an Integrated Resource Plan template should be included in the work plan because these templates should fit into the PNW Resource Adequacy Reporting process.

John Fazio asked how the WECC schedule fits into our work plan. Mary and Wally both responded to this question by summarizing the work of WECC Loads and Resources Subcommittee (LRS) in terms of developing Resource Adequacy Guidelines. The goal is for the LRS to be able to recommend these guidelines to the Planning Coordination Committee by October, so that the WECC Board will be in a position to adopt the guidelines at their December meeting. The PNW Resource Adequacy Forum’s schedule is out ahead of the WECC schedule in that both the capacity and energy metrics and targets will have been adopted before the WECC Guidelines go forward for adoption. Since the Northwest is the only energy-constrained region in WECC, it is likely that any WECC energy assessment will be performed using the Forum’s metrics and targets or an assessment methodology that is less stringent. Currently, WECC only performs capacity assessments.

Once WECC adopts Resource Adequacy Guidelines, it is expected to take a couple of years before WECC’s Power Supply Assessments can be tailored to the resource adequacy assessment methodology in the guidelines because of

the significant effort involved in revising the reporting and analytical protocols. Howard asked whether there will be one standard for the entire Western Interconnection or multiple standards. Wally suggested that there might be one approach each to evaluating capacity and energy adequacy. However, there may be pressure to use different metrics and targets for various sub-regions of WECC to reflect the way various states and sub-areas evaluate resource adequacy in the West.

III Proposed Capacity Metric and Target

A Federal Capacity Analyses

Mary made a presentation on the Federal sustained hydro peaking capability under emergency and normal operations. A question came up about the difference between the White Book operational capacity and the Federal sustained hydro capability under normal operations to meet cold snap loads. The short answer is that the White Book evaluates capacity needed to meet one in two, or expected, loads. The White Book does not include hydro flexibility to draft below fish refill curves nor does it assume emergency fish operations. The White Book operational capacity maximizes hydro capability needed to meet expected loads and operating reserves, while minimizing purchases. The Federal sustained hydro peaking capacity (for the planning cold snap scenario) assumes no purchases would be available during the on-peak hours, whereas the White Book number may assume some on-peak purchases. However, after the cold snap has passed, the cold snap scenario requires significantly more purchases to recover from the adverse temperature operation.

B Should sustained hydro peaking capacity be based on normal or emergency operations?

Wally noted that the Technical Committee felt the capacity metric should not be based on hydro operations that assumed enactment of emergency fish operations. This also means that the reserve margin would not be based on the absolutely worst case cold snap. The February 1989 cold snap represents a 20 degree variation from normal. Many utilities plan for a 10 degree variation. In the worst case, emergency operations would be assumed to be enacted.

C Intuitive Approach for Capacity Target

John presented the regional analysis for the capacity metric and target. He described the various components that might make up the reserve planning margin percentage. He presented a Regional Capacity Assessment for a load resource balance of -1,500 aMW, which equates to a Loss of Load Probability (LOLP) of 5%. To get to this scenario, John increased the

regional loads by 4,000 aMW on an annual basis. The results indicate the Region has a capacity reserve margin of 33% for a sustained peaking capacity metric of 10 hours a day over 5 days. John noted that hydro capability drops off faster than load, which results in 28% reserves for a 2-hour sustained peaking capacity metric. In Phase II of the work plan, the Technical Committee will perform additional analyses to refine the duration assumption for the sustained peaking capacity metric.

John observed that the Region is currently still energy limited, so generation infrastructure would be added based on energy rather than capacity needs. However, as the Region grows and more thermal resources are added, at some point, the Region may become capacity limited. Pat McGary pointed out that the addition of significant amounts of renewables, i.e. wind, may also result in capacity becoming the controlling metric sooner. The Technical Committee is working on how to count wind toward meeting the capacity metric.

D Statistical Approach for Capacity Target

John then discussed a statistical approach to determining a target capacity reserve margin, which uses an LOLP analysis, just counting the capacity events toward curtailments. If the threshold capacity event is 2,500 MW; a study, which results in an energy LOLP of 5% yields a capacity LOLP of 2%.

John suggested one approach to intuitively understanding the threshold capacity event is to assume a 20% reserve margin and then calculate back to what type of event results from a capacity LOLP of 5%. John completed the thought by stating that ultimately an LOLP analysis with a capacity-based target of 5% appears to be the right approach to determine the capacity reserve margin target.

There was a discussion regarding how to count capacity events. The results of the GENESYS Program, John presented, just counts as a bad season any season in which there is a curtailment greater than 2,500 mw. However, if there are seasons with a number of events greater than 2,500 mw, such a season still only counts as one bad season. Is this reasonable? John indicated that he will perform additional studies to flesh out this analysis.

IV Implementation Plan Revisions & Reporting Process

Wally presented the current version of the implementation paper, which proposes to assure resource adequacy through such mechanisms as Regional awareness of resource adequacy issues, the transparency afforded by reporting and assessment processes and the threat of high market prices.

There are a number of avenues for modifying the PNUCC reporting process to transition that reporting process to one, which will function as the Regional resource adequacy data gathering effort. Tom Karier suggested that only the modifications to the PNUCC reporting process will need to be considered by the Steering Committee. Reporting and assessment issues that need to be resolved include:

- When to count planned resources as firm?
- How to count wind capacity?
- Will standardized data reporting be the norm, or will utilities have discretion on how data is reported?
- Is the three year planning horizon sufficient to account for the need to possibly build base load plants or transmission infrastructure? Should assessments be done for multiple years? Perhaps more planning reserves are needed for horizons that are further out?

Paul suggested that there be two timeframes (5 years and 3 years out) for depicting Regional resource adequacy assessments, possibly for both the physical and economic standards. Steve Fisher brought up the point that factors such as the cost of gas might trigger an economic warning light. How should such an evaluation be performed and reported? Wally suggested that only a red light three years out (i.e. the physical standard is forecasted to be violated three years out) would trigger “shining the spotlight” on individual utilities, which may be disproportionately relying on the spot market.

There was a robust discussion regarding the economic standard. An economic standard would only apply to regional assessments and would not be the basis for “shining the spotlight” on individual utilities. An economic standard would need to deal with issues such as the potential price volatility due to gas prices. The approach, which appeared to be favored by the group, is for the Council to use the methodology in their Fifth Power Plan for evaluating economic risk. This methodology includes the ability to spotlight risk factors such as resources not being sufficiently diverse.

Dick Adams suggested that just relying on an approach that shines the spotlight on individual utilities under a red light condition is too narrow. The Region would need to have a conversation regarding all the factors potentially contributing to resource inadequacy. Steve Weiss pointed out that the information regarding individual utility resources is key to that discussion. Mary pointed out that FERC in its Final Rule on certifying the Electric Reliability Organization (ERO) and Reliability Standards requires that the ERO needs to have the ability to delve down to the individual utility level with respect to evaluating resource adequacy. So, the PNW assessment methodologies should provide that ability.

Dick said his concern is that the process might become too automatic. The evaluation needs to include conversations with individual utilities regarding their

individual resource strategies to meet their load obligations. However, Tom pointed out the Resource Adequacy Forum needs one more tool in its traditional arsenal to highlight concerns—i.e. the ability to shine the spotlight on individual utilities—because the lessons of the past point out that regional assessments showing inadequacy do not necessarily result in utilities stepping up to the plate and building infrastructure. Paul provided the Bonneville perspective, i.e. that with Bonneville stepping back from its “provider of last resort” role, it needs to be assured that there are mechanisms to reasonably assure resource adequacy going forward. Dick indicated that he is just suggesting there be more next steps if the red light goes on than just publishing the list of utilities, which are disproportionately relying on the spot market. There needs to be an in-depth evaluation of the factors leading to generation insufficiency and a plan for how to address the factors. Howard emphasized that, at least, Washington legislators expect a fair degree of transparency in these evaluations. Steve Fisher advocated for an approach, which is sufficiently simple to allow implementation a number of years in the future since the Region may be surplus for quite some time.

V Schedule Next Meeting and Adjourn

The next meeting will be a conference call on **July 10 from 9 – noon**. The following meeting will be on **July 28 from 10 – 3 at the Council’s offices**.